

Table H4 World Carbon Dioxide Emissions from the Consumption of Coal, 1990 - 1999

(Million Metric Tons of Carbon Equivalent)

Region Country	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999 ¹
North America										
Canada.....	31.12	31.67	26.81	30.19	31.64	32.22	32.37	35.64	38.14	36.40
Mexico.....	4.25	3.95	4.41	4.92	4.80	6.02	6.38	7.84	6.98	6.01
United States.....	484.82	481.02	486.07	502.11	507.70	510.29	532.56	547.32	550.00	549.26
Total.....	520.18	516.63	517.29	537.21	544.14	548.52	571.30	590.80	595.12	591.67
Central & South America										
Argentina.....	0.56	0.75	0.64	0.56	0.95	0.97	0.95	0.96	0.90	1.11
Brazil.....	9.16	10.81	9.78	9.87	9.45	9.71	10.09	9.96	14.29	13.45
Chile.....	2.51	1.96	1.71	1.77	2.08	2.27	3.40	4.72	3.68	4.44
Colombia.....	1.75	3.17	2.64	3.68	3.20	2.35	2.95	3.36	3.89	2.36
Costa Rica.....	(s)	(s)	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00
Cuba.....	0.16	0.11	0.06	0.08	0.09	0.07	0.01	0.04	0.03	0.01
Dominican Republic.....	0.01	0.14	0.13	0.16	0.04	0.05	0.07	0.07	0.17	0.15
Haiti.....	0.01	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jamaica.....	0.04	0.04	0.03	0.03	0.04	0.04	0.04	0.04	0.05	0.05
Panama.....	0.02	0.03	0.04	0.04	0.04	0.04	0.07	0.04	0.04	0.04
Peru.....	0.15	0.32	0.31	0.44	0.41	0.38	0.43	0.40	0.40	0.47
Puerto Rico.....	0.14	0.13	0.10	0.13	0.13	0.13	0.11	0.11	0.11	0.11
Uruguay.....	(s)									
Venezuela.....	0.15	(s)	(s)	0.03	0.05	(s)	(s)	0.01	0.01	0.01
Virgin Islands, U.S.....	0.05	0.09	0.15	0.18	0.20	0.17	0.17	0.16	0.14	0.14
Other.....	0.03	0.04	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.10
Total.....	14.74	17.61	15.68	17.02	16.74	16.24	18.36	19.91	23.75	22.44
Western Europe										
Austria.....	3.58	3.74	2.93	3.10	2.76	3.02	3.32	3.80	3.32	3.22
Belgium.....	10.67	10.09	8.22	8.12	8.90	9.33	8.75	9.07	9.17	7.96
Denmark.....	6.31	8.13	7.28	6.27	7.06	7.57	7.65	8.25	5.06	4.46
Finland.....	4.10	3.71	3.11	4.40	5.31	3.83	4.52	4.98	3.29	2.67
France.....	19.84	20.76	17.33	14.60	13.96	15.32	15.74	14.39	16.71	15.08
Germany.....	--	108.57	100.45	97.43	86.86	90.29	88.74	88.70	87.02	83.47
Germany, East.....	65.98	--	--	--	--	--	--	--	--	--
Germany, West.....	71.31	--	--	--	--	--	--	--	--	--
Greece.....	9.04	8.96	8.04	8.71	8.82	8.59	8.31	9.19	9.73	9.64
Iceland.....	0.07	0.07	0.05	0.05	0.07	0.06	0.07	0.06	0.07	0.06
Ireland.....	2.20	2.14	2.18	2.08	1.94	1.93	1.98	2.01	2.00	1.77
Italy.....	13.74	14.05	11.14	10.42	10.28	12.14	10.47	10.53	11.13	11.60
Luxembourg.....	1.31	1.23	1.13	1.30	1.05	0.58	0.54	0.36	0.11	0.11
Malta.....	0.20	0.20	0.16	0.18	0.18	0.18	0.21	0.20	0.00	0.00
Netherlands.....	10.85	9.58	8.58	9.62	10.30	10.28	9.90	12.76	12.76	11.23
Norway.....	0.94	0.85	0.74	0.91	1.06	1.09	1.10	1.16	1.22	1.17
Portugal.....	3.02	2.92	2.73	3.05	3.24	3.72	3.27	3.77	3.16	3.84
Spain.....	21.62	22.20	20.89	19.99	19.36	18.09	15.12	17.37	16.67	18.84
Sweden.....	2.57	2.37	1.89	2.40	1.81	2.51	2.36	2.46	2.29	2.22
Switzerland.....	0.34	0.27	0.10	0.09	0.10	0.17	0.10	0.08	0.07	0.06
Turkey.....	16.01	18.44	16.51	16.17	15.59	15.96	18.47	22.04	22.91	21.42
United Kingdom.....	67.70	66.24	58.29	54.16	49.58	44.17	43.47	40.97	41.63	38.83
Former Yugoslavia.....	24.05	22.62	--	--	--	--	--	--	--	--
Bosnia and Herzegovina.....	--	--	0.43	0.32	0.32	0.36	0.37	0.40	0.41	0.41
Croatia.....	--	--	0.32	0.43	0.28	0.07	0.24	0.30	0.25	0.25
Macedonia, TFYR.....	--	--	1.62	1.63	1.68	1.74	1.72	1.79	2.11	1.70
Serbia and Montenegro.....	--	--	9.51	9.01	9.26	6.57	9.91	9.85	10.45	7.67
Slovenia.....	--	--	1.67	1.58	1.44	1.66	1.75	1.83	1.51	1.33
Total.....	355.44	327.15	285.30	276.01	261.20	259.21	258.08	266.33	263.05	249.03

See footnotes at end of table.

Table H4 World Carbon Dioxide Emissions from the Consumption of Coal, 1990 - 1999 (Continued)

(Million Metric Tons of Carbon Equivalent)

Region Country	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999 ¹
Eastern Europe & Former U.S.S.R.										
Albania.....	0.65	0.38	0.21	0.15	0.04	0.04	0.02	0.02	0.01	0.01
Bulgaria.....	11.55	9.32	9.45	8.71	7.95	7.82	8.38	9.57	9.52	7.83
Former Czechoslovakia.....	61.02	56.53	51.25	--	--	--	--	--	--	--
Czech Republic.....	--	--	--	20.92	21.06	21.22	22.32	22.72	22.21	16.62
Slovakia.....	--	--	--	5.82	5.26	5.08	5.44	5.17	4.54	3.26
Hungary.....	5.81	6.20	4.88	4.52	4.20	3.97	4.14	4.16	3.89	4.00
Poland.....	73.16	73.08	72.39	74.77	70.07	65.59	58.69	70.74	63.84	62.25
Romania.....	12.69	10.32	10.68	10.39	10.58	10.78	11.09	9.70	7.92	7.35
Former U.S.S.R.....	333.24	256.78	--	--	--	--	--	--	--	--
Armenia.....	--	--	0.10	(s)	0.02	(s)	(s)	(s)	(s)	(s)
Azerbaijan.....	--	--	0.02	(s)						
Belarus.....	--	--	0.97	0.99	0.60	0.75	0.60	0.50	0.44	0.44
Estonia.....	--	--	0.46	0.34	0.44	0.47	0.35	0.38	0.34	0.47
Georgia.....	--	--	0.26	0.17	0.16	0.14	0.09	0.06	0.01	0.01
Kazakhstan.....	--	--	38.80	32.19	22.52	22.65	19.85	15.80	11.90	10.83
Kyrgyzstan.....	--	--	1.24	0.86	0.98	0.77	0.54	0.28	0.54	0.47
Latvia.....	--	--	0.58	0.31	0.26	0.17	0.11	0.11	0.07	0.07
Lithuania.....	--	--	0.66	0.24	0.41	0.18	0.20	0.17	0.16	0.14
Moldova.....	--	--	1.87	1.33	1.27	0.66	0.57	0.30	0.27	0.26
Russia.....	--	--	153.58	142.83	126.16	118.19	131.88	114.20	100.24	104.99
Tajikistan.....	--	--	0.15	0.19	0.10	0.05	0.06	0.06	0.05	0.06
Turkmenistan.....	--	--	0.36	0.32	0.32	0.16	0.05	0.03	0.00	0.00
Ukraine.....	--	--	69.33	62.67	49.98	59.81	49.18	45.82	44.86	48.78
Uzbekistan.....	--	--	2.22	1.63	1.66	1.29	1.22	1.07	1.11	1.11
Total.....	498.11	412.61	419.46	369.37	324.04	319.79	314.79	300.84	271.93	268.96
Middle East										
Cyprus.....	0.05	(s)	0.01	0.03	0.02	0.02	0.01	0.02	0.01	0.01
Iran.....	1.14	1.04	0.89	0.86	1.12	0.97	1.02	1.14	1.03	1.06
Israel.....	2.73	2.68	3.04	4.32	4.92	4.90	4.88	5.71	6.25	6.25
Other.....	(s)	0.01	(s)	0.08	0.08	0.13	0.14	0.13	0.13	0.13
Total.....	3.92	3.73	3.95	5.29	6.15	6.02	6.04	7.00	7.42	7.45
Africa										
Algeria.....	0.76	0.75	0.67	0.70	0.61	0.68	0.44	0.37	0.51	0.42
Botswana.....	0.49	0.48	0.55	0.54	0.55	0.63	0.52	0.51	0.60	0.61
Cameroon.....	(s)									
Congo (Kinshasa).....	0.16	0.17	0.17	0.18	0.19	0.18	0.19	0.18	0.20	0.08
Egypt.....	1.02	0.81	0.72	0.87	0.83	0.54	0.95	1.02	1.07	1.41
Ghana.....	(s)	0.07	(s)							
Kenya.....	0.11	0.09	0.11	0.11	0.09	0.07	0.06	0.06	0.08	0.08
Libya.....	(s)									
Madagascar.....	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Malawi.....	0.04	0.04	0.04	0.04	0.04	0.05	0.06	0.05	0.05	0.05
Mauritania.....	(s)	0.00								
Mauritius.....	0.05	0.04	0.04	0.05	0.03	0.04	0.04	0.04	0.04	0.04
Morocco.....	1.36	1.58	1.13	1.69	1.86	1.88	2.25	2.11	2.36	2.38
Mozambique.....	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05
Niger.....	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.11	0.09	0.10
Nigeria.....	0.04	0.07	0.07	0.09	0.09	0.10	0.10	0.10	0.04	0.00
South Africa.....	65.95	68.17	71.30	73.05	76.76	76.68	77.99	87.23	84.47	81.55
Swaziland.....	0.11	0.08	0.07	0.03	0.12	0.11	0.09	0.09	0.17	0.19
Tanzania.....	(s)									
Tunisia.....	0.09	0.09	0.10	0.11	0.10	0.08	0.09	0.09	0.07	0.00
Zambia.....	0.24	0.19	0.22	0.17	0.10	0.09	0.10	0.10	0.10	0.10
Zimbabwe.....	3.66	3.47	3.68	3.37	3.64	3.58	3.04	2.58	2.65	2.84
Total.....	74.26	76.30	79.04	81.19	85.20	84.89	86.10	94.71	92.58	89.91

See footnotes at end of table.

Table H4 World Carbon Dioxide Emissions from the Consumption of Coal, 1990 - 1999 (Continued)

(Million Metric Tons of Carbon Equivalent)

Region Country	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999 ¹
Far East & Oceania										
Afghanistan.....	0.06	0.06	(s)							
Australia.....	36.14	37.48	40.59	39.54	37.85	38.42	41.58	49.09	50.84	51.99
Bangladesh.....	0.39	0.13	0.11	0.03	0.03	0.03	0.18	0.33	0.09	0.09
Bhutan.....	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.01	0.01
Burma.....	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.05	0.04
China.....	514.36	534.75	551.64	581.44	633.31	645.49	641.10	649.21	600.47	494.67
Fiji.....	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01
Hong Kong.....	5.44	5.87	5.70	6.25	4.47	4.81	4.53	3.64	4.53	4.07
India.....	101.29	105.26	116.63	123.15	125.34	153.38	149.77	149.68	148.22	156.15
Indonesia.....	4.28	4.11	4.95	5.78	7.07	7.23	9.89	8.46	9.36	6.94
Japan.....	66.21	67.84	66.01	66.68	68.72	72.16	74.13	80.53	78.40	81.48
Korea, North.....	32.57	32.75	33.01	33.19	33.40	33.19	33.02	31.25	30.74	30.52
Korea, South.....	21.31	23.42	21.13	25.31	28.11	29.01	29.87	32.10	33.18	35.78
Laos.....	(s)									
Macau.....	(s)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Malaysia.....	1.39	1.44	1.62	1.41	1.65	1.67	2.15	1.57	1.56	1.04
Mongolia.....	1.97	2.07	1.65	1.50	1.38	1.42	1.38	1.25	1.28	1.26
Nepal.....	0.01	0.05	0.07	0.05	0.10	0.08	0.08	0.08	0.07	0.20
New Caledonia.....	0.09	0.10	0.10	0.14	0.13	0.13	0.11	0.11	0.11	0.11
New Zealand.....	1.26	1.18	1.39	1.34	1.18	1.18	1.06	1.04	0.97	0.88
Pakistan.....	2.10	2.09	2.22	2.31	2.45	2.27	2.53	2.21	2.11	2.25
Papua New Guinea.....	(s)									
Philippines.....	1.47	1.62	1.59	1.93	2.01	2.11	2.53	2.78	2.55	2.58
Singapore.....	0.03	0.02	0.02	0.03	0.04	0.04	(s)	(s)	(s)	0.00
Sri Lanka.....	(s)									
Taiwan.....	9.97	11.05	12.69	15.50	16.33	18.00	20.25	24.52	25.02	27.57
Thailand.....	3.78	4.50	4.58	4.92	5.56	9.91	9.72	9.31	7.52	6.85
Vietnam.....	3.09	2.54	2.55	3.55	3.52	4.82	3.66	3.49	3.34	3.17
Total.....	807.29	838.39	868.33	914.14	972.73	1,025.43	1,027.62	1,050.69	1,000.40	907.67
World Total.....	2,273.96	2,192.41	2,189.05	2,200.24	2,210.20	2,260.09	2,282.28	2,330.29	2,254.26	2,137.14

¹ Preliminary.

-- Not applicable.

(s) = Value less than 5,000 metric tons.

Notes: Sum of components may not equal total due to independent rounding.

Tons of carbon equivalent can be converted to tons of carbon dioxide gas by multiplying by 3.667. One ton of carbon equivalent = 3.667 tons of carbon dioxide gas.

Source: Office of Energy Markets and End Use, Energy Information Administration.